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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,645	10/18/2000	Rudolf Maurer	15258-049600US	4394

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EXAMINER

SORKIN, DAVID L

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 02/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,645

Applicant(s)

MAURER ET AL.

Examiner

David L. Sorkin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 18 October 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8, drawn to a static mixer, classified in class 366, subclass 336.
 - II. Claim 9, drawn to casting or molding method, classified in class 164, subclass 15.
 - III. Claim 10, drawn to "use" of a mixer in injection molding machines, classified in class 264, subclass 328.18.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the elements could be made by deforming a piece of sheet metal rather than by casting or molding.
3. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the mixer could be used to mix paint components.

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4. Inventions I and III are related as process of making and process of using the product. Since the product is not allowable, restriction is proper between said method of making and method of using (MPEP § 806.05(i)).
5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
6. Because these inventions are distinct for the reasons given above and the search required for each Group is different, restriction for examination purposes as indicated is proper.
7. During a telephone conversation with J. Georg Seka on 29 January 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9 and 10 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
9. Note: it is unclear what is being claimed, particularly in claims 5-8, as discussed below. Amendment of the claims and/or addition of claims may result in further restriction requirements, such a combination/subcombination restriction requirement.

Specification

10. The disclosure is objected to because of the following informalities: References to specific claim numbers should be eliminated because the scope and/or numbering of the claims may change during prosecution and/or some claims may be canceled. See especially pages 1-3.

Claim Objections

11. Claims 5-8 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. Claim 1 is rendered indefinite by the phrase "in particular" because it is unclear whether the limitations to which the phrase applies are required aspects of the claimed mixer or merely exemplary.

15. In claim 1, there is lack of antecedent basis for "their circumference" and "the entire circumference". The elements have not been recited as being of a shape which defines a circumference, such a cylinder, prior to these recitations.

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16. In claim 1, line 6, it is unclear whether "the elements" refers to the "precision cast elements" or the "intermediate elements" or both.

17. In claim 1, it is unclear whether the "intermediate elements" are part of the claimed mixer, or if they are merely recited in connection with an intended use.

18. In claim 4, it is unclear whether the "longitudinally slit cylinder" is part of the claimed mixer, or if it is merely recited in connection with an intended use.

19. Regarding claim 5, 35 U.S.C. 112, fourth paragraph, requires that "a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers". However, the phrasing of claim 5, "for a static mixer in accordance with claim 1" suggest that claim 5 is not directed to a further limitation of the mixer of claim 1, but instead is directed to a component intended to be used in a mixer according to claim 1; however, such an interpretation is not permitted by the fourth paragraph. Therefore, it is unclear what is being claimed.

20. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to

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whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation 10-70 degrees, and the claim also recites "about 45 degrees" which is the narrower statement of the range/limitation.

Note

21. While claims 1-8 make reference to how elements of the apparatus may be made, apparatus claims are not limited by steps of making. See MPEP 2113.

Claim Rejections - 35 USC § 102

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

23. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogasawara et al. (US 6,109,781). Regarding claim 1, Ogasawara ('781) discloses a static mixer (1) comprising elements (3, the odd ones counting left to right in Fig. 1) which are arranged along a central axis and which in each case have a reinforcement region (7) at their circumference which extends over the entire circumference, wherein these elements are assembled with intermediate elements (3, the even ones counting left to right in Fig. 1) to form a cylindrical body, and wherein joint locations between the elements form surfaces which stand transversely to the central axis. Regarding claim 2, the reinforcement regions are ring shape and each of the rings has cutouts (13) which are complementary to projecting parts (11). Regarding claim 3, at least some of the projecting parts (11) are separate parts which are fitted into cutouts (13) of the intermediate elements. Regarding claim 4, the elements are capable of being held together by a longitudinally slit cylinder of sheet metal.

24. Claims 1-5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by King (US 4,614,440). Regarding claim 1, King ('440) discloses a static mixer comprising elements (10, 12, etc.) which are arranged along a central axis and which in each case have a reinforcement region at their circumference which extends over the entire circumference, wherein these elements are assembled with intermediate elements (11, etc.) to form a cylindrical body, and wherein joint locations between the elements form surfaces which stand transversely to the central axis. Regarding claim 2, the reinforcement regions are ring shape and each of the rings has cutouts which are

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complementary to projecting parts (see Fig. 4). Regarding claim 3, at least some of the projecting parts are separate parts which are fitted into cutouts of the intermediate elements (see Fig. 4). Regarding claim 4, the elements are capable of being held together by a longitudinally slit cylinder of sheet metal. Regarding claim 5, the elements comprise a gridwork (13) of webs which are arranged in layers, with the layers oriented parallel to the central axis and with the webs crossing one another and enclosing angles between 10 and 70 degrees (see Fig. 3, and col. 3, lines 32-37 of King US 3,923,288 which is incorporated by reference), with respect to the central axis. Regarding claim 7, the gridwork is reinforced by a flange-like, co-cast ring which has two ring shaped surfaces which lie transversely to the central axis and which are provided as joint locations to intermediate elements (see Figs. 3 and 4).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara et al. (US 6,109,781). Regarding claim 5, the elements comprise a gridwork of webs (9) which are arranged in layers, with the layers oriented parallel to the central axis and with the webs crossing one another (see Fig. 1) and enclosing angles with respect to the central axis. While the exact angle is not disclosed, it is depicted as being within the claimed range of 10-70 degrees in Fig. 1. It is considered that it would

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have been obvious to one of ordinary skill in the art to have optimized this angle to suit a particular material being mixed. Regarding claim 6, it is considered that it would have been obvious to one of ordinary skill in the art to have made the element out of well known materials such as metal or plastic. Regarding claim 7, the gridwork is reinforced by a flange-like, co-cast ring which has two ring shaped surfaces which lie transversely to the central axis and which are provided as joint locations to intermediate elements (see Fig. 2). Regarding claim 8, two pairs of segment like cut outs are provided at the outer edge of the ring, with the cutouts of a pair in each case being arranged diametrically with respect to one another and with the two pairs being displaced by 90 degrees with respect to one another (see Fig. 2; col. 4, lines 14-19).

27. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (US 4,614,440). Regarding claim 6, it is considered that it would have been obvious to one of ordinary skill in the art to have made the element out of well known materials such as metal or plastic. Regarding claim 8, two pairs of segment like cut outs are provided at the outer edge of the ring, with the cutouts of a pair in each case being arranged diametrically with respect to one another (see Fig. 4). The exact angle of displacement of the two pairs is not disclosed; however, it is considered that it would have been obvious to one of ordinary skill in the art to have optimized the angle.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 703-308-1121. The examiner can normally be reached on 8:00 -5:30 Mon.-Fri..

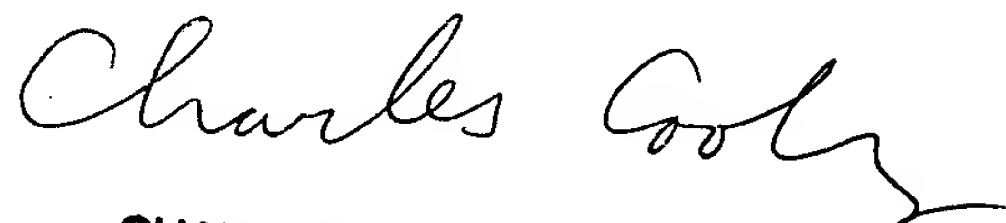
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



David Sorkin

February 5, 2002



CHARLES E. COOLEY
PRIMARY EXAMINER